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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,783	10/24/2003	Larry M. Ernst	BLD920030007US1	2343

33595 7590 08/08/2007
INTERNATIONAL BUSINESS MACHINES CORPORATION
9000 SOUTH RITA ROAD
TUCSON, AZ 85744

EXAMINER

BRINICH, STEPHEN M

ART UNIT	PAPER NUMBER
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2625

MAIL DATE	DELIVERY MODE
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08/08/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10693783	10/24/03	ERNST ET AL.	BLD920030007US1

INTERNATIONAL BUSINESS MACHINES CORPORATION
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TUCSON, AZ 85744

EXAMINER

Stephen M. Brinich

ART UNIT	PAPER
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2625

20070803

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

Office Action Summary	Application No. 10/693,783	Applicant(s) ERNST ET AL.	
	Examiner Stephen M. Brinich	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-33 is/are allowed.
- 6) ☒ Claim(s) 34-46 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 34-46 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 34-46 are drawn to functional descriptive material embodied on a computer readable medium (i.e., "data structures and computer programs which impart functionality when employed as a computer component" at MPEP 2106.IV.B(1)). However, the program/algorithm itself merely manipulates data or an abstract idea, or merely solves a mathematical problem without a limitation to a practical application in the technological arts. MPEP 2106.IV.B.2(a) (Statutory Product Claims) states:

A claim limited to a ... manufacture, which has a practical application in the technological arts, is statutory.

In order for a claimed invention to accomplish a practical application, it must produce a "useful, concrete and tangible result" *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02 (see MPEP 2106.II.A). Currently, the claim does not recite a practical application. In order to for the claimed product to

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produce a "useful, concrete and tangible" result, recitation of one or more of the following elements is suggested:

The manipulation of data that represents a physical object or activity transformed from outside the computer (MPEP 2106 IVB2(b)(i)).

A physical transformations outside the computer, for example in the form of pre or post computer processing activity (MPEP 2106 IVB2(b)(i)).

A direct recitation of a practical application in the technological arts (MPEP 2106 IVB2(b)(ii)).

In the present case, an explicit recitation of a physical post-processing activity (e.g. a step of charging a sub-region, as opposed to calculating a value which may be used for that purpose) is suggested.

Allowable Subject Matter

3. Claims 1-33 are allowed.
4. Claims 34-46, insofar as they are understood, would be allowable if rewritten or amended to overcome the rejection(s) under 35 USC §101 set forth in this Office action.
5. The following is a statement of reasons for the indication of allowable subject matter:

Re claims 1, 15, 26, & 34 (and dependent claims 2-14, 16-25, 27-33, & 35-46), the art of record does not teach or suggest the recited arrangement of determining a pel pulse width value

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based on a pattern of surrounding pel in conjunction with the recited use of two adjacent pel pulse width values to calculate a combined pulse width and determine position information indicating an alignment of a resulting sub-region associated with the two adjacent pels.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cianciosi et al (Figures 3A-3D), Frazier (Figures 5-8), Amm et al (column 5, line 64 - column 6, line 2) disclose examples of pulse width modulation involving adjacent pixels.

7. Any inquiry concerning the contents of this communication or earlier communications from the examiner should be directed to Stephen M. Brinich at 571-272-7430.

Any inquiry relating to the status of this application or proceeding or any inquiry of a general nature concerning application processing should be directed to the Tech Center 2600 Customer Service center at 571-272-2600 or to the USPTO Contact Center at 800-786-9199 or 571-272-1000.

The examiner can normally be reached on weekdays 8:00-5:30, alternate Fridays off.


The examiner's unit designation has been changed from "Art Unit 2624" to "Technology Division 2625" (as of March 20, 2006).

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If attempts to contact the examiner and the Customer Service Center are unsuccessful, supervisor David Moore can be contacted at 571-272-7437.

Faxes pertaining to this application should be directed to the Tech Center 2600 official fax number, which is 571-273-8300 (as of July 15, 2005).

Hand-carried correspondence may be delivered to the Customer Service Window, located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314.


Stephen M Brinich
Examiner
Technology Division 2625

smb
August 3, 2007